

EK

Notice of Allowability	Application No.	Applicant(s)	
	10/791,055	BRICK ET AL.	
	Examiner	Art Unit	
	Leith A. Al-Nazer	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 19 October 2005.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Shih-Chao Chen 11/14/05
SHIH-CHAO CHEN
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-19 are allowed.

2. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest one or more of the limitations found in independent claims 1 and 7. U.S. Patent No. 5,684,817 to Houdre et al., U.S. Patent No. 5,784,400 to Joannopoulos et al., U.S. Patent No. 6,416,575 to Yamada, U.S. Patent No. 6,674,778 to Lin et al., and U.S. Patent Application Publication No. 2005/0152656 to Talneau et al. all teach related systems to the system claimed in independent claim 1. However, with respect to independent claim 1, Houdre, Joannopoulos, Yamada, Lin, and Talneau, as well as the other prior art of record, fail to teach or suggest the structural combination of a plurality of discontinuities formed in a first region of the semiconductor body and arranged such that radiation generated by the semiconductor laser cannot propagate through the first region; and a second region of the semiconductor body constituting the laser resonator, the second region being formed by an interruption of the arrangement and having none of the discontinuities formed therein, to enable propagation of radiation generated by the semiconductor laser through the second region. U.S. Patent No. 5,784,400 to Joannopoulos et al., U.S. Patent No. 6,416,575 to Yamada, U.S. Patent No. 6,683,898 to Ostergaard et al., U.S. Patent No. 6,704,343 to Deng et al., and non-patent literature to Hwang et al. all teach

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related systems to the system claimed in independent claim 7. However, with respect to independent claim 7, Joannopoulos, Yamada, Ostergaard, Deng, and Hwang, as well as the other prior art of record, fail to teach or suggest the structural combination of a waveguide for coupling the pump radiation into the vertical emitter quantum well structure, wherein the waveguide is laterally delimited at least partly by an arrangement of a plurality of discontinuities arranged in such a way that the pump radiation is not capable of propagating within the arrangement. Therefore, independent claims 1 and 7, as well as all respective dependent claims, are allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leith A. Al-Nazer whose telephone number is 571-272-1938. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LA

Shih-Chao Chen 11/14/05
SHIH-CHAO CHEN
PRIMARY EXAMINER